Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of Advanced	)	
Telecommunications Capability to All Americans	)	CC Dkt. No. 98-146
in a Reasonable and Timely Fashion, and Possible	)	
Steps To Accelerate Such Deployment Pursuant to	)	
Section 706 of the Telecommunications Act of 1996	)	

MOTION OF U S WEST COMMUNICATIONS, INC.
TO ACCEPT LATE-FILED COMMENTS

U S WEST Communications, Inc. ("U S WEST") respectfully moves the Commission to accept the attached comments in the above-referenced proceeding. U S WEST was unable to file these comments yesterday because of difficulty using the Commission's Electronic Comment Filing System ("ECFS"). If any portion of U S WEST's comments was successfully transmitted last night, U S WEST respectfully requests that the attached comments be substituted for the portion received.

Counsel for U S WEST attempted to upload these comments onto the ECFS at approximately 9:00 p.m. on September 14, 1998. The first portion of the comments, a Word Perfect 6.1 file containing the main body of the comments, appeared to uploaded successfully. ECFS did not complete the uploading of a second file, an Adobe Acrobat PDF file containing the attachments to the comments. And the ECFS server did not respond to requests for confirmation of receipt of the comments. Accordingly, counsel began a new uploading session in an effort to submit both the comments and attachments, but the ECFS server did not respond. Counsel attempted repeatedly to submit the comments and attachments, without success, until the

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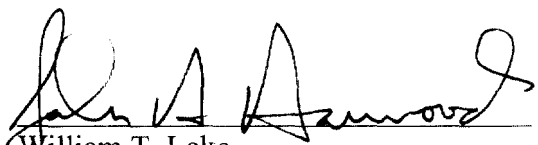
midnight filing deadline.

Because reply comments in this docket are not due until October 8, 1998, accepting these comments one day late will not prejudice any party to the proceeding.

Respectfully submitted,



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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996	)))))	CC Dkt. No. 98-146

COMMENTS OF U S WEST COMMUNICATIONS, INC.

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SUMMARY

The Commission initiated this proceeding to explore ways to facilitate the deployment of advanced services to all Americans. To have any prospect of achieving that goal, the Commission must recognize that the market for broadband services is rapidly converging, and must structure regulation (and deregulation) accordingly. In particular, the Commission needs to give effect to Congress's determination in the Telecommunications Act of 1996 that the discipline of the competitive marketplace is a better protector of consumers' interests and a more effective spur to technological innovation than any regulatory dictate.

The 1996 Act reflects Congress's understanding that technological advances are eroding the boundaries that have traditionally separated the different sectors of the communications industry. It also reaffirms Congress's support for an advanced services marketplace that is unfettered by regulation — particularly regulation that addresses market segments in isolation. By contrast, the Notice of Inquiry rests on the Commission's apparent assumption that sector-by-sector regulation should persist indefinitely. Rather than looking for ways to encourage competition among broadband technologies, and to make regulatory regimes more uniform, the NOI considers each group of communications providers separately, and presumes that each type of technology must be managed through traditional regulatory means.

This approach would not only impose more regulation where less is needed, but would fall short of fulfilling the Commission's responsibility under the Act to promote the deployment of advanced services to all Americans. The Commission's policies instead should be guided by four essential principles. First, the Commission should encourage the development of a unified, converged market for digital broadband services, in which robust competition

among different networks prevents any competitor from having bottleneck control over the "last mile" and obviates the need for regulation. Second, the Commission should require broadband providers to make only essential facilities available to their competitors, and then only for so long as such facilities remain bottlenecks. Third, the Commission's rules should be competitor- and technology-neutral. The Commission should not regulate based on its prediction of winners and losers; it should instead ensure that regulatory classifications do not stand in the way of innovation. Finally, the Commission should ensure that all Americans can receive the benefits of the boom in advanced services, not just businesses and urban residents. Regulations that make it too expensive for carriers to bring advanced services to rural America should be eliminated, even if they marginally further competition in business and urban markets.

In its comments, U S WEST shows that advanced telecommunications services are increasingly provided in a single market by a wide array of competitors using different technologies. But such services are not being deployed to all communities equally: As U S WEST demonstrated in its original Section 706 Petition, rural Americans face an acute shortage of data bandwidth. The Commission should respond by lifting regulations and correcting regulatory disparities that discourage the development of inter-sector competition and slow the deployment of advanced telecommunications services to all Americans.

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COMMENTS OF U S WEST COMMUNICATIONS, INC.

U S WEST Communications, Inc. ("U S WEST") hereby submits these comments in response to the Commission's Notice of Inquiry in the above-captioned docket.

PRELIMINARY STATEMENT

As expressed in its preamble, the fundamental goal of the Telecommunications Act of 1996 is "[t]o promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." The Act reflects Congress's reaffirmation that the discipline of the competitive marketplace is a better protector of consumers' interests and a more effective spur to technological innovation than any regulatory dictate. In particular, Congress recognized that the advanced packet-switched data networks and Internet services representing the future of telecommunications "have flourished, to the benefit of all Americans, with a minimum of government regulation," and Congress declared it the policy

of the United States "to preserve the vibrant and competitive free market that presently exists for the Internet . . . unfettered by Federal or State regulation." 47 U.S.C. §§ 230(a)(4), (b)(2).[1/]

Congress also recognized that packet-switched networks and other digital technologies would continue to advance and would soon enable customers to send and receive new voice, video, and data services over the same high-speed data channel; technological convergence would erode the boundaries that have separated the different parts of the communications industry, leading players from all sectors to compete with each other in a single market for broadband services. In Section 706 of the Telecommunications Act — enacted to implement Congress's express national policy in favor of bringing new technologies and services to the public, 47 U.S.C. § 157 — Congress directed the Commission to "encourage the deployment on a reasonable and timely basis" of this "advanced telecommunications capability," which it defined in competitor-neutral terms "without regard to any transmission media or technology." Act §§ 706(a), (c)(1). Congress concluded that inappropriate regulation of advanced services could throttle their deployment by discouraging investment, raising deployment costs, or unfairly disadvantaging some competitors or technologies over others — which in turn would deprive Americans of the benefits of these technological advances. Thus, it further directed the Commission to "determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion" and, if not, to "take immediate action to accelerate deployment of such capability by removing barriers to

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[1/] Importantly, when Congress talks about preserving the unregulated nature of the "Internet" industry, it means the provision of the underlying "interoperable packet switched data networks," not just the Internet access or content industries. 47 U.S.C. § 230(e)(1).

infrastructure investment" — action that would include "regulatory forbearance." Id. §§ 706(a)-(b). The primary concern of Congress is that regulation not stifle technological development or stand in the way of citizens receiving these new technologies.

The Commission's Notice of Inquiry launching this investigation correctly acknowledges that what have heretofore been different technologies providing different services are now rapidly converging, and that the current sector-by-sector approach to regulation does not fit well with a world in which providers from historically distinct sectors of the industry compete in a single market for broadband services. But whereas Congress professes faith in an "unfettered" marketplace for advanced services, 47 U.S.C. § 230(b)(2), the Notice appears to proceed from the assumption that sector-by-sector regulation will continue for the indefinite future. Accordingly, the largest part of the Notice looks at each group of communications companies in isolation, assumes that their new broadband offerings are nothing more than extensions of the basic services currently offered by different classes of providers, and asks how the regulations that apply to those basic services can be extended to the advanced ones. Rather than focus on how to encourage the competition among broadband technologies that would make regulation unnecessary, the bulk of the Notice tends to treat each type of technology as a separate marketplace that must be managed using the traditional regulatory tools of that sector.

Such an approach, which proceeds on the assumption that regulation can direct technological development as well as the free market does, will fail to realize Congress's procompetitive and forward-looking goals. First, it favors individual competitors over competition. Companies that have their roots in a lightly regulated sector will have a permanent, artificial advantage over companies coming from a highly regulated sector, even though both

may provide identical or substitute services. Indeed, the Notice all but dismisses the contributions of the one sector — incumbent LECs — whose ability to invest and innovate has been most severely harmed by regulation. Second, it stunts inter-sector competition by discouraging entry. An incumbent LEC, for instance, will have sharply reduced incentives to use VDSL technology to provide multichannel video service in competition with a Title VI cable incumbent if that technology, once deployed, would be subject to regulation as a telephone exchange or exchange access service. Finally, the Notice's single-minded focus on opening individual sectors of the market to competition will sacrifice the deployment to "all Americans" that is a core goal of Section 706. The Notice's approach may help lucrative urban and business customers obtain additional new services, but only at the cost of introducing regulatory inefficiencies that harm the country as a whole.

As it begins to consider these new technologies and services, the Commission must be careful to avoid interpreting the Telecommunications Act in a manner that stunts the very broadband competition that Congress hoped to further. The following principles should guide Commission policy:

1. The Commission's primary goal should be to encourage the development of a unified, "converged" market for digital broadband services, in which robust competition among different networks and network technologies prevents any competitor from having bottleneck control over the "last mile" and makes market regulation unnecessary. This requires giving all network providers maximum freedom to develop and deploy broadband services that enable them to enter new sectors of the marketplace. The Commission must not be so zealous about using regulation to encourage multiple providers in individual sectors of the marketplace that it ultimately sacrifices the competition among sectors that would obviate the need for regulation altogether.

2. Broadband network providers should be required to make only "essential" facilities available to their competitors, and then only for as long as those facilities remain bottlenecks. A facility is not "essential" if (i) the facility itself is competitively available from sources other than the incumbent, or (ii) there are functional substitutes for that facility.

3. Rules should be competitor- and technology-neutral. Competitors that provide the same services should be regulated the same way, regardless of the technologies they use or the sectors of the industry they come from. The Commission cannot and should not pick winners and losers, and it should not regulate on the basis of predictions as to what direction future innovations will take. Instead, the Commission should ensure that historical regulatory classifications do not hamper technological advances.

4. The Commission must ensure that all Americans can receive the benefits of advanced technologies, not just businesses or individuals in urban areas; and it must further ensure that its actions do not limit the classes of citizens who will see the benefits of these technologies. Congress expressly directed the Commission to lift any regulatory barriers that prevent carriers from deploying digital infrastructure broadly. Regulations that make it too expensive for carriers to bring advanced services to smaller and rural markets violate this directive, even if those regulations marginally further competition in business and urban markets.

The Commission has structured its inquiry around three questions: What is advanced telecommunications capacity; is that capacity being deployed on a reasonable and timely basis to all Americans; and how does regulatory policy affect the pace of this deployment? We address each question in turn.

I. "ADVANCED TELECOMMUNICATIONS CAPABILITY" IS INCREASINGLY PROVIDED BY MANY COMPETITORS USING DIFFERENT TECHNOLOGIES IN A SINGLE MARKET FOR BROADBAND SERVICES.

Virtually every sector of the communications industry has announced ambitious plans to deploy high-speed data transport services in the immediate future. Incumbent cable operators are upgrading their systems to a hybrid fiber-coax architecture and rolling out cable

modem services bundled with proprietary Internet access and content services. These services now have 350,000 residential subscribers nationwide, with that number expected to grow to 2 million by the end of 1999 and 12.8 million by 2002.[2/] Indeed, recent multibillion-dollar investments in cable by companies such as Microsoft, Compaq, and AT&T, and individuals such as Paul Allen represent significant bets that cable modems soon will become the dominant method for delivering broadband across the last mile.[3/] In addition, DBS providers such as Hughes are providing downstream high-speed data services right now,[4/] and multiple full-broadband satellite networks — including Iridium, GlobalStar, Teledesic, SkyBridge, and ICO — are expected to come on-line over the next three years.[5/] Fixed wireless providers, such as

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2/ See "High-Speed Internet Access To Reach 16 Million U.S. Households by 2002," Forrester Research, <http://www.forrester.com/press/pressrel/98901.htm>. Moreover, cable modem services are available to an extremely large customer base. The eighteen cable MSO affiliates of @Home, for example, enable @Home to reach over 60 million households. See "@Home: Fast Growth, Fast Friends," PC Magazine 127 (Sept. 22, 1998). The MSO affiliates of Road Runner reach another 27 million homes. See Timothy Hanrahan, "Cable-Modem Service Road Runner Claims 100,000 Subscribers in U.S.", Wall St. J. Interactive Ed., <http://interactive.wsj.com/edition/articles/SB902158203406719500.htm>.

3/ See, e.g., "Microsoft, Compaq Round Out RoadRunner Investment," <http://www.internetnews.com/isp-news/1998/06/1502-microsoft.html>; Tom Valovic, "The AT&T/TCI Deal: A Defining Event in Telecom?," Telecom. at 6 (Aug. 1, 1998); Morris Edwards, "High-Speed Access Kicks It into High Gear," Comm. News at 98 (Aug. 1, 1998); "Paul Allen Plans to Use Cable TV Plant To Offer Advanced Services," Comm. Bus. & Fin. at 5 (Aug. 17, 1998).

4/ See Bob Metcalfe, "Hughes Satellite Gives Telcos, TV Companies Needed 'Net Competition," InfoWorld, Oct. 28, 1996, <http://www.infoworld.com/cgi-bin/displayArchives.p1?dt_iwe44-96_28.html>.

5/ See Gary L. Garriot, "Low Earth Orbiting Satellites and Internet-Based Messaging Services," <http://www.specialty.com/hiband/satellite_index.html>. Last year, the International Bureau granted licenses to thirteen potential Ka-band satellite providers enabling them to provide "desktop-to-desktop videoconferencing, electronic messaging and facsimile,

(continued...)

WinStar Communications, in the 24, 28, and 38 GHz bands are deploying ATM point-to-multipoint networks that enable them to carry local and long-distance voice, data, and video and provide high-speed Internet access.[6] Sprint has announced, and AT&T reportedly will soon announce, plans to deploy nationwide ATM fiber networks capable of providing the same mix of services.[7] Wireless cable providers are also extending their operations to provide broadband services.[8]

Wireline local exchange carriers have also announced plans to deploy advanced telecommunications capability — most notably, digital subscriber line technologies ("xDSL") that use additional electronics to enable existing copper loops to carry data at multi-megabit speeds. Analysts predict that 2.5 million xDSL lines will be in use by 2001.[9] Notwithstanding

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[5] (...continued)
direct-to-home video, distance learning and corporate training, Internet access, telemedicine, electronic transaction processing, satellite news gathering," and other broadband services. "International Bureau Grants Licenses for 73 New Ka-Band Satellites," IN 97-12 (rel. May 9, 1997) (listing licensees).

[6] See, e.g., "WinStar Expands Point-to-Multipoint Demonstration Network in Washington, D.C.," Business Wire, Sept. 1, 1998, <http://biz.yahoo.com/bw/980901/winstar_1.html>.

[7] See "AT&T Sees Need for Speed: Telecom Giant Reportedly Set To Unveil High-Speed Network for Businesses," CNNfn, Sept. 10, 1998, <http://cnnfn.com/hotstories/companies/9809/10/att>; Jack Richard, "Sprint Drops Another Pin," Boardwatch Magazine, Aug. 1998, <http://boardwatch.internet.com/mag/98/aug/bwm57.html>.

[8] See Wireless Communications Association International, "Take a Second Look at Wireless Cable," Nov. 28, 1997, <http://www.wcai.com/Marktech.htm#articleMarHigh98>. In addition, the Commission has announced that at its next open meeting on September 17, it will consider action to give MMDS and ITFS licensees increased flexibility to provide two-way digital services.

[9] See Center for Telecommunications Management, "ADSL: Prospects and (continued...)

the Notice of Inquiry's unwarranted skepticism regarding the abilities of incumbent LECs to deploy these new technologies (see, e.g., Notice ¶ 21),[10/] U S WEST is working hard to bring broadband to market. U S WEST is in the process of deploying asymmetric digital subscriber line services (capable of transporting data at speeds of 256 kbps to 7 Mbps) in 226 wire centers in forty-three cities across its fourteen-state service region; as of today, it has deployed ADSL in 215 of these wire centers.[11/] Moreover, contrary to the Notice's suggestion that "[m]ost incumbent LECs . . . have avoided entering other territories or the MVPD market" (Notice ¶ 27),

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9/ (...continued)
Possibilities," ADSL Forum, Jul. 1998, <http://www.adsl.com/mrp_exec_summary.html> (citing International Data Corporation forecast).

10/ Apart from betraying Congress's principles of competitor- and technology-neutrality, such skepticism ignores actual experience. Where regulators have not impeded RBOCs from innovating and investing in the enhanced services market, for example, their participation has had indisputable economic benefits. RBOC entry into and innovations in providing voice messaging and enhanced fax services created mass markets to the benefit of all competitors and customers. An analysis by Booz-Allen & Hamilton submitted in the Computer III docket demonstrated that RBOC entry into these services brought their prices down dramatically, causing demand to explode and transforming these services from niche large-business services into mass-market residential and small-business services. See Booz-Allen & Hamilton, Inc. The Benefits of RBOC Participation in the Enhances Services Market III-5 to III-7 (1995). It was the RBOCs who first marketed these services to low-income and minority customers, again creating new opportunities for the marketplace as a whole. See id. at III-9. Booz-Allen confirmed the continuing validity of these conclusions last year. See Letter to Frank Hatzenbuehler, U S WEST, from Robert G. Docters, Booz-Allen & Hamilton, Inc., dated Sept. 2, 1997. Copies of this letter and the original study are attached as Attachment A. Of course, to the extent that the Commission adopts rules that actively discourage incumbent LEC investment and innovation, the Commission becomes the active agent of its own skepticism.

11/ For a more detailed description of the scope of this deployment, see "U S WEST Turns on Nation's First Mass-Market, Multi-City Deployment of Ultrafast ADSL Internet Service," May 4, 1998, <http://www.uswest.com/com/insideusw/news/050498/index.html>; "U S WEST To Launch Second 20-City Wave of Lightning-Fast ADSL Internet Service," June 5, 1998, <http:www.uswest.com/com/insideusw/news/060598.html>.

U S WEST has aggressively pursued these opportunities. U S WEST was the first Bell company to offer interLATA data transport services in competition with interexchange carriers' services outside of its service territory, and its !nterprise networking unit is now the third-largest provider of frame-relay services nationwide. U S WEST has also entered into alliances with Qwest and Williams Communications to build an intercity broadband network that will serve the top eighty markets outside its region. In addition, U S WEST has been granted a franchise from the cities of Phoenix, Scottsdale, and Gilbert, Arizona to provide digital multichannel video and on-line services over subscribers' telephone lines using very high speed digital subscriber line ("VDSL") technology, in direct competition with incumbent cable operators.[12/]

Although each type of company just described employs a different transmission and last-mile technology — and each comes from what is now considered (and regulated as) a different sector of the communications industry — the development of standard protocols for switching, routing, and video and audio compression means that every one of these companies can provide "advanced telecommunications capability" that "enables users to originate and receive high-quality voice, data, graphics, and video telecommunications." Act § 706(c)(1). All of these providers compete in a single, converged market for digital broadband services because they all offer end users essentially the same thing: high-speed transmission of information

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12/ For a description of these services, see "U S WEST Announces Nation's First Fully Integrated Digital TV and On-Line Service that Provides Cable TV Programming Over Existing Phone Lines," Apr. 20, 1998, <http:www.uswest.com/com/insideusw/news/042098a.html>.

packets.[13] Indeed, by defining "advanced telecommunications capability . . . without regard to any transmission media or technology," Act § 706(c)(1), Congress itself acknowledged that digital services delivered by different providers over different technologies were substitutes for one another in a single market, even if sixty years' worth of regulations have treated those providers and technologies differently.

Congress's assessment has been borne out by experience. In Phoenix, Arizona, for example, robust facilities-based competition among broadband providers from different sectors of the industry has developed particularly quickly — the result of the competitive pressures that each provider puts on the others to invest in advanced facilities, not of any regulatory mandate. Notwithstanding their different technologies and traditional regulatory categories, these providers rightly perceive that they compete head-to-head with one another in the same markets for residential and business high-speed data services:[14]

- U S WEST !nterprise offers residential and business end users in Phoenix digital subscriber line services (branded "MegaBit services") at speeds ranging from a symmetrical 256 kilobits per second to an asymmetrical 7 megabits per second downstream/1 megabit per second upstream connection. Prices start at $ 40 per month and increase with greater speeds, with a set-up charge of $145. As noted above, U S WEST has also received a local franchise to deploy a higher-speed

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[13] See, e.g, Barbara Esbin, Internet Over Cable: Defining the Future in Terms of the Past, OPP Working Paper Series 30, at 112 (1998) ("The communications and communications services made possible by the Internet are fundamentally unlike those provided in the past over the technologically separate public switched telephone network, data networks, broadcast networks, and cable television systems in that a single medium is capable of delivering nearly any type of communications service on an integrated basis."); Mem. Op. and Order, Deployment of Wireline Services offering Advanced Telecommunications Capability, CC Dkt. No. 98-147 et al., at ¶ 6 (rel. Aug. 7, 1998) (hereinafter, "Advanced Services Order").

[14] See Reinhardt Krause, "Will Phone or Cable Rise from Rivalry in Phoenix?", Investor's Business Daily at A8 (Jul. 15, 1998).

digital subscriber line technology, VDSL, to provide digital, Title VI multichannel video programming and on-line services in direct competition with the incumbent cable provider, Cox Communications.

- Cox, in turn, has deployed @Home and @Work cable modem services, directed to residential and business users respectively. @Home offers potential speeds of 3 megabits per second downstream and 1.5 megabits upstream, but actual speeds are lower during peak times (in the range of 200-300 kilobits per second) because this capacity is shared among all users on the node.[15/] These services cost $44.95 per month for cable subscribers and $54.95 per month for nonsubscribers, with a standard set-up charge of $149.95.[16/] By April 1998, @Home had approximately 3,000 subscribers in Phoenix[17/] and was available to 250,000 customers.[18/] In addition, Cox is beginning to roll out digital local telephone services over its system.[19/] Cox operates more than 9,200 miles of cable infrastructure in Phoenix, and passes more than 1 million homes.[20/]

- Hughes offers a high-speed data service called DirecPC to its digital broadcast satellite subscribers, which combines a satellite-delivered downstream channel of up to 400 kilobits per second with a 33 kilobit per second telephone upstream channel. The service costs $39.95 to $129.95 per month depending on speed, with an initial charge of approximately $450.[21/]

- People's Choice TV, a 2.5 GHz wireless cable provider (MMDS), offers Phoenix business and residential users a service called SpeedChoice, with a shared 10

15/ See <http://www.home.net/home/speed.html>.

16/ See <http://www.phx.cox.com/internet/cox@home/pricing.html>. These prices include lease charges for the cable modem. The monthly charge drops by $15 if the customer purchases the cable modem for $400.

17/ "City's Initial Cable Service Replaces TCI," Arizona Daily Star at 10A (Apr. 3, 1998).

18/ "U S WEST Service Integrates TV and Internet," Internet World at 8 (Apr. 27, 1998).

19/ See Lisa Gonderinger, "Cox Phone Service Debuts Near ASU," Arizona Republic at 11 (Aug. 28, 1998).

20/ See <http://www.cox.com/systems/phoenix.html>.

21/ See <http://www.direcpc.com>.

megabit per second downstream data channel received over a microwave dish, combined with a 33 kilobit per second telephone upstream channel. The service costs $44.95 per month with a nonrecurring charge of $199, or $149.95 with a twelve-month contract.[22] A second 2.5 GHz MMDS provider, UltimateCom, has announced plans to offer similar data services in Phoenix in the near future.[23]

- At the highest end of the market, the five largest facilities-based CLECs in Phoenix — Electric Lightwave, GST Telecommunications, MCI, MFS WorldCom, and Teleport Communications Group — are providing businesses with high-speed access and dedicated transport using over 800 route miles of fiber they have deployed in and around the city. These CLECs have captured 20% of the wholesale market for high-capacity services in Phoenix (defined as DS1 or greater transport), and, together with resellers, fully 70% of the retail market. These CLECs are also capturing more than half of the yearly growth in these services, meaning that their market shares will continue to increase in the future.[24] Although they are now serving high-end business customers exclusively, the CLECs' ability to quickly extend their activities downmarket constrains prices in those other market segments as well.

- Three of the largest fixed wireless competitors hold significant spectrum in Phoenix and have similarly announced plans to enter the market for high-capacity voice and data services. WinStar, which claims to be the largest holder of spectrum in the United States, holds 700 MHz of spectrum in the 38 GHz band and plans to begin offering data and local telephone services in Phoenix by the end of the year.[25] Advanced Radio Telecommunications ("ART") holds 100 MHz of spectrum and is targeting carrier customers.[26] Teligent holds 400 MHz of

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[22] See <http://www.speedchoice.com>.

[23] See <http://www.ultimatecom.com>.

[24] See Quality Strategies, U S WEST High Capacity Market Study: Phoenix Metropolitan Statistical Area 3-4 (1998). This study is attached as Attachment B.

[25] See <http://www.winstar.com/indexBusServ.htm>. WinStar is planning a nationwide deployment of a point-to-multipoint system that offers up to four DS3 capacity circuits per 100 MHz channel. See <http://www.winstar.com/indexNews.htm>.

[26] ART offers transmission speeds from 28.8 kbps through T1 and T3 speeds. In April, WinStar agreed to purchase 14.9 % of ART.

spectrum in the 24 GHz band in Phoenix and plans to offer integrated voice and data services to business customers.[27/]

The fact that these providers must operate at similar price points for similar speeds (beginning at $40-$50 per month for residential access) demonstrates that each provider's activities are constrained by competition from the other high-speed data providers, even though all of the providers are employing different technologies.

Indeed, these services operate in a single market for broadband that should be regulated (and deregulated) as such. The merger guidelines of the Department of Justice and Federal Trade Commission define the scope of a market by testing whether "a hypothetical profit-maximizing firm that was the only present and future seller of [a] product[] . . . likely could impose at least a 'small but significant and nontransitory' increase in price." 1992 Horizontal Merger Guidelines, 1992 Horizontal Merger Guidelines § 1.11, 57 Fed. Reg. 41552, 41555 (1992). In other words, if a hypothetical sole supplier of a particular product or service could significantly influence its price or output, the product or service constitutes the relevant market by itself. See IIA Phillip E. Areeda, et al., Antitrust Law ¶ 533, at 170 (1995). If the sole supplier could not control price or output, the relevant product market also includes other products or services that are substitutes for that product or service. See id.; Merger Guidelines § 1.11, 57 Fed. Reg. at 41555. Once the grouping of products and substitutes is sufficiently broad that a hypothetical sole supplier could control the price without a significant number of

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[27/] Teligent plans to offer transfer rates up to 1.544 Mbps. See <http://www.teligent.com/index.asp>.

customers leaving for alternative services, that grouping defines the boundaries of the relevant market. See Merger Guidelines § 1.11, 57 Fed. Reg. at 41555.[28/]

Plainly, no provider of a particular type of digital broadband service in Phoenix possesses such power over its price. Where comparable transmission speeds are offered, a customer does not care whether bits are delivered to his home via a telephone company's xDSL service, a cable modem, various wire technologies, or any other system. Price is the key variable. Thus, if Cox were to raise the price of its high-capacity cable modem service by a "small but significant and nontransitory" amount, customers would instead choose U S WEST's MegaBit service, or another substitute, and vice versa. Digital broadband services therefore are part of a single market, even though current Commission regulations treat them otherwise. It is critical that the Commission recognize the realities of this market, and work towards a deregulatory structure that treats all broadband services equally, regardless of how or by whom they are provided.

II. BROADBAND SERVICES ARE NOT BEING DEPLOYED TO ALL COMMUNITIES AND CUSTOMERS EQUALLY.

Section 706 of the Act charges the Commission with the duty to ensure that advanced telecommunications capability is deployed to all Americans in a reasonable and timely fashion. Act §§ 706(a), (b). Although it is true, as described in the previous section, that many different companies are beginning to develop and deploy advanced telecommunications

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28/ Suppliers of the relevant service for purposes of this analysis include not only current service providers but also "uncommitted entrants" — firms that would rapidly enter the market in response to a price increase. See Merger Guidelines § 1.32, 57 Fed. Reg. at 41556.

capability, it is also the case that these activities are not proceeding uniformly across the nation. There is a significant gulf between wealthy urban areas that have access to advanced services, such as downtown and suburban Phoenix, and rural and inner-city communities that lack such access. Current Commission policies will only make this gulf grow wider.

As U S WEST demonstrated in its original Section 706 Petition for Relief (a copy of which is appended hereto as Attachment C), rural Americans face an acute shortage of data bandwidth. The infrastructure of the Internet is not evenly distributed across the country. The high-speed links of the network connect only the largest cities. See U S WEST Petition at 9. U S WEST's 14-state region has only a handful of high-speed (DS3 or above) points of presence ("PoPs"). As a result of the underdevelopment of Internet backbone, providers of advanced services have been forced to concentrate on urban areas and businesses. An ISP in a smaller market cannot offer subscribers advanced services if its only affordable connection to the Internet is a congested pipeline that is relatively slow to begin with. See U S WEST Petition at 23.

Because of its existing facilities and mass-market focus and experience, U S WEST is well positioned to bring broadband services to communities and demographics not readily served by others. To date, however, U S WEST has had to limit its own rollout of advanced services to the forty-three largest cities in its service area. The high cost of deployment, particularly in light of the regulatory obstacles with which U S WEST must contend (unbundling, price cap regulations, interLATA restrictions, and so on), has impeded further deployment.

Since the filing of U S WEST's Petition for Relief, the situation of smaller and rural communities has not improved. According to the most recent Boardwatch Magazine

survey,[29] the largest backbone networks still have deployed only a handful of DS3 or greater PoPs in U S WEST's region. Only one new city in the region — Des Moines, Iowa — has received a high-speed PoP, meaning that sixteen out of U S WEST's twenty-seven LATAs still lack any kind of high-speed Internet PoP at all. At a time when the information highway in many areas is growing by leaps and bounds, the stagnancy in much of U S WEST's region underscores the fact that advanced services are not being deployed to "all Americans in a reasonable and timely fashion." Act § 706(b).

Several examples from U S WEST's region further illustrate the seriousness of the problem and the barriers to progress posed by regulations intended for POTS. Customers in many parts of Colorado, for example, find that they are simply unable to obtain affordable access to advanced services. In Denver, the University of Colorado Health Sciences Center and University Hospital provide invaluable medical consultations and educational and research services — telemedicine — to rural areas throughout the Rocky Mountain region. The cost of the network infrastructure the University needs varies tremendously depending on whether LATA boundaries prevent U S WEST from providing the desired facilities. Direct U S WEST-provided connections linking the University and Grand Junction (a distance of approximately 202 miles), and Grand Junction and Cortez (approximately 102 miles) cost the University $2,800 per month and $1,800 per month, respectively. By contrast, the link between the University and Trinidad (approximately 180 miles) costs the University $3,800 per month — because it involves an IXC-provided facility that spans the LATA boundary.

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[29] See <http://www.boardwatch.com/ISP/backbone.html>.

Colorado Mountain College's network deployment is likewise hampered by the distorted and inefficient pricing of facilities and services, which U S WEST could ameliorate if permitted. The College has invested heavily in a state-of-the-art interactive video system that links students and teachers who are separated by distances that may exceed 100 miles. Almost half of the monthly budget of $13,756 for the communications network is consumed by a single connection from Glenwood Springs to Leadville, because that connection crosses a LATA boundary. While the distance between the two cites is only 59 miles, the IXC that supplies the link routes data traffic through Colorado Springs, its nearest PoP, extending the length of the link to 255 miles and elevating the monthly cost to a staggering $6,600. If U S WEST were allowed to build a direct link between Glenwood Springs and Leadville, the College would pay approximately $1,570 per month. With that change alone, the College's communications budget would fall 37%.

Finally, U S WEST recently installed frame relay service to 26 elementary and secondary schools operated by the Bureau of Indian Affairs in extremely rural parts of Arizona and New Mexico, bringing these students high-speed Internet access and distance learning programs. Regulatory barriers that applied in one state, however, made this deployment significantly more expensive than in the other. In New Mexico, a single-LATA state, U S WEST could provide the schools with cost-effective end-to-end connections in conjunction with some rural independent telephone companies. The existence of a LATA boundary dividing southern Arizona, on the other hand, meant that an IXC had to provide several links of the network. Use of the IXC raised the cost of connecting four schools in rural Arizona by $3,244 per month. This

expense would not have been necessary if U S WEST had been permitted to deploy its network across the boundary.[30/]

III. THE COMMISSION SHOULD LIFT REGULATIONS AND CORRECT REGULATORY DISPARITIES THAT DISCOURAGE THE DEVELOPMENT OF INTER-SECTOR COMPETITION AND SLOW THE DEPLOYMENT OF ADVANCED TELECOMMUNICATIONS.

As the Commission recognized in seeking comment on the relationship between regulation and the deployment of advanced telecommunications capability, regulatory policy remains one of the key determinants of investment decisions by incumbents and new entrants alike, even in this era of converging markets. Regulatory inefficiencies override market and technological incentives and divert investment from its first, best use. Accelerating the pace of infrastructure investment and innovation requires reducing the role of regulation and allowing companies to determine what services to provide to whom in consultation with their marketing experts and engineers rather than their attorneys. In short, the Commission must live up to its commitment in its advanced services Memorandum Opinion and Order "to ensur[e] that incumbent LECs" and other providers "make their decisions to invest in and deploy advanced telecommunications services based on the market and their business plans, rather than regulation." Advanced Services Order ¶ 13.

30/ While U S WEST is permitted to cross LATA lines to provide Internet service over dedicated facilities to elementary and secondary schools, see 47 U.S.C. § 271(g)(2), this provision is of limited usefulness in practice: As was true in the situation described in the text, it is usually not economically feasible to construct dedicated facilities to serve a school without being able to use the facilities to serve any other customers.

A. The Commission Should Not Regulate a Converged Marketplace.

The Notice of Inquiry properly recognizes that many facilities-based providers from historically different (and differently regulated) sectors of the communications industry are beginning to compete with one another in a single market for advanced telecommunications capacity. But the Notice sends mixed signals about what this development means for the future of communications regulation. On the one hand, the Notice asks how broadband services can best be shoehorned into one or more of the traditional regulatory categories (see, e.g., Notice ¶ 77) and whether the Commission should use the old regulatory tools of each sector to create sweeping new network access rights for additional groups of companies, such as Internet service providers. See, e.g., id. ¶¶ 37-38 (proposing extensions of incumbent LEC regulation), 79 (same for other last-mile providers). On the other hand, the Notice recognizes that, "[i]f there is true choice in the supply of last miles," perhaps no economic regulation (other than antitrust law) is needed at all. Id. ¶ 81.[31/]

The latter approach — to leave advanced services in the hands of the free market, as with the Internet — is the right one. Technological convergence creates a marketplace that can regulate itself by eroding bottlenecks, increasing the number of facilities-based competitors, and sharpening competitors' incentives to invest and innovate. Such a marketplace protects the

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[31/] In addition, the Notice asks commenters "to consider the Internet industry as a model of what a maturing market for advanced telecommunications capability and advanced services might be." Id. ¶ 80. That, of course, is an industry that Congress has found to have "flourished, to the benefit of all Americans, with a minimum of government regulation." 47 U.S.C. § 230(a)(4). U S WEST agrees that the potential for robust competition among many broadband technologies and providers makes the Internet industry an appropriate model for the advanced services marketplace.